Curriculum Vitae

Brief Profile:

Dr J Jerald is an Assistant Professor in the Department of Production Engineering since Oct 2006. His area of interest are Flexible Manufacturing System, Optimization and Micro/Nano Machining. He is teaching various subjects on Manufacturing Technology such as Flexible Manufacturing System, Production Automation and CNC Technology, Computer Integrated Manufacturing, Micro/Nano Machining, Precision Machining, etc to the Under Graduate and Post Graduate students. He has got funding from various agencies to promote research on Micro/Nano Machining and developed Micro/Nano Machining Laboratory in the Department of Production Engineering. National Institute of Technology, Tiruchirappalli. Dr J Jerald has introduced core and elective subjects on Micro/Nano Machining and laboratory practicals on Micro/Nano Machining in B.Tech. (Production Engg.) and M.Tech.(Manufacturing Technology) curriculum. He has guided 8 PhD scholars and is presently guiding 4 students and more than 70 M.Tech. and M.S. (by research) students. Dr J Jerald has published more than 100 publications in refereed international/national journals and various international/national conferences. He has actively participated in various departmental development activities and administrative activities since joining the institution. He has been involved in various committees in the institution and department level.

1. Name: Dr J JERALD
2. Designation: Associate Professor
3. Office Address: Dept. of Production Engineering
4. Telephone (Direct) : +91-431-250-3518
   Mobile: +91-94425 30103
5. Email (Primary): jerald@nitt.edu
6. Field(s) of Specialization: Flexible Manufacturing System,
   Micro/Nano Machining, Optimization

7. Employment Profile

Job Title	Employer	From	To
Lecturer	SASTRA University, Thanjavur	10.06.1998	14.07.2004
Senior Lecturer	SASTRA University, Thanjavur	15.07.2004	05.10.2006
Assistant Professor	NIT Tiruchirappalli	06.10.2006	11.03.2018
Associate Professor	NIT Tiruchirappalli	12.03.2018	Till date

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
PhD	Bharathidasan University	2006	NA	Production Engg.
ME	Bharathiyar University	1997	I	Production Engg
BE	Bharathiyar University	1995	I	Mechanical Engg
HSc	State Board	1990	I	Maths, Physics, Chemistry, Biology
SSLC	State Board	1988	I	Regular Subjects

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department /Centre/Institution	From	To
Associate Dean (Students Welfare)	Institution	Jan. 2020	June 2022
Associate Dean (P&D))	IIIT Trichy	Nov. 2018	Oct. 2019
Warden- Lapis & Pearl Hostels, NITT	Institution	June 2012	Nov 2015
Associate Dean (Students Welfare)	Institution	Oct. 2012	Nov 2015
Member in Institute Strategic Transformation Group (STG)	Institution	Oct. 2012	June 2016
Member of Special Task Force for Centre of Excellence in Smart Systems and MEMS	Institution	March 2012	June 2016
Faculty Advisor - B. Tech. (Prod. Engg.)	Department	June 2011	May 2015
Faculty Advisor- M.Tech. (Mfg. Tech.)	Department	June 2008	May 2010
Coordinator-QIP PhD admissions	Department	June 2008	May 2012
Project Evaluation Committee Coordinator-M.Tech(MT&IE)	Department	2010	2011
Lab i/c - Mechatronics lab.-	Department	2007	2010

Lab i/c - Computer Integrated Manufacturing lab.-	Department	Since 2009	---
Lab i/c -Micro-machining lab.	Department	Since 2011	---
Faculty Advisor- M.Tech. (Mfg. Tech.)	Department	June 2016	---

10. Academic/Administrative Responsibilities outside the University

- Doctoral Committee Member for Anna University Chennai and other Deemed Universities
- Reviewer for various international journals and conferences

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2011	Young Scientist Award	DST

12. Fellowships ----

13. Details of Academic Work

(i) Curriculum Development

- Introduced core subjects on Micro/Nano Machining in M.Tech. (Manufacturing Technology) and B.Tech. (Production Engineering) courses.
- Introduced Micro-machining lab. in M.Tech. (Manufacturing Technology) and B.Tech. (Production Engineering) courses
- Established 1) Micro-machining Lab., 2) Mechatronics Lab. 3) Computer Integrated Manufacturing Lab.in the Dept. of Production Engg., NITT.

(ii) Courses taught at Postgraduate and Undergraduate levels
Precision Machining, Production Automation and CNC Technology, Computer Integrated Manufacturing, Automation and CIM, Production Technology

(iii) Projects guided at Postgraduate level: Total No.: 70

(iv) Other contribution(s):

- Got a grant of Rs. 50 Lakhs for promoting research on Micro/Nano Machining under DST-FIST.
- Purchased various equipments such as Lathes, Drilling machines, Multi process micro-machining center, Surface grinding machine, Mechatronics lab equipments, Co-ordinate Measuring Machine, etc to the Department of Production Engg., NIT Tiruchirappalli.
- Developed lab manuals

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed

Development of Indigenous Capability for Ultra-Precision Electrolytic In-Process Dressing (ELID) Grinding Facility for Micro/Nano Machining. (Rs15.5 Lakhs)	DST	2011	2014	Completed
Design, Fabrication and Testing of Meso and Micro Scale Resonant Sensors with Electronics (Rs.49 Lakhs)	SERB	2013	2016	Ongoing

15. Number of PhDs guided: 8

Name of the PhD Scholar	Title of PhD Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award
R. Ramesh	Modeling and Analysis of Concurrent Tolerance Allocation for Quality Improvement and Cost Reduction	Supervisor	2008
A. Gnanavel Babu	Simultaneous Scheduling of Flexible Manufacturing System Components using Non-Traditional Optimization Techniques	Co-Supervisor	2010
N. Rajesh Mathivanan	Experimental Investigation of Low Velocity Impact Characteristics of Woven Glass Epoxy Composite Laminates	Supervisor	2011
S.P. Leokumar	Investigations on Intelligent Process Planning System for Tool Based Micromachining Processes	Supervisor	2016
J.Cyril Pilligirin	Investigations on Intelligent Process Planning System for Tool Based Micromachining Processes	Co supervisor	2018
A.Saravanan	Ontological Modelling of Geometric Tolerance Using Intelligent Techniques	Supervisor	2020
T. Venkatesan	Experimental Investigations and Analysis on High Speed Micro-Drilling of Superalloys	Supervisor	2020

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc.

Workshops/ Symposia/ Colloquia /Seminars/ Schools etc (Attended)

Title	Held at	Duration
"Role of Banks in Human Resource Development" (ISTE)	SASTRA University, Thanjavur	02.03.2000 to 04.03.2000
"Induction Training to Young Teachers" (AICTE)	SASTRA University, Thanjavur	01.11.2000 to 17.11.2000
"Appropriate Technology for Sustainable Development"	SASTRA University, Thanjavur	26.04.2001 to 28.04.2001
"Remedial English for Lecturers"	SASTRA University, Thanjavur	05.08.2002 to 15.08.2002
"Recent Trends in Modeling and Analysis of Manufacturing Systems" (AICTE – ISTE)	National Institute of Technology, Trichy	16.12.2002 to 27.12.2002
"Modeling and Optimization of Manufacturing Systems using Conventional and Non-Conventional Techniques" (AICTE-ISTE)	JJ College of Engg. And Technology, Trichy	10.11.2003 to 21.11.20003
Industrial Internship	Brakes India Ltd., Chennai	27.06.2005 to 08.07.2005
"Computer Aided Manufacturing" (TEQIP)	National Institute of Technology, Trichy	02.12.2005 to 03.12.2005
"Optimization Algorithms for Manufacturing Applications" (TEQIP)	National Institute of Technology, Trichy	09.06.2006 to 10.06.2006
"Finite Element Method And Applications in Engineering using ANSYS" (TEQIP)	National Institute of Technology, Trichy	26.11.2007 to 27.11.2007
"Design of Experiments for Engineers and Researchers" (TEQIP)	National Institute of Technology, Trichy	19.12.2007 to 20.12.2007
"Metallurgy and Materials: Today and Tomorrow" (AICTE-QIP)	National Institute of Technology, Trichy	11.02.2008 to 15.02.2008
"Advanced Tools and Techniques for Research in Engineering Problems" (AICTE-QIP)	National Institute of Technology, Trichy	25.02.2008 to 29.02.2008
"Nano Materials (Science, Technology and Applications)" (TEQIP)	National Institute of Technology, Trichy	03.03.2008 to 07.03.2008
"Applications of IT Tools in Manufacturing" (TEQIP)	National Institute of Technology, Trichy	11.03.2008 to 12.03.2008
"Recent Advances In Industrial Engineering" (AICTE)	National Institute of Technology, Trichy	07.04.2008 to 11.04.2008
The First SERC School on "Micro Machining" (DST)	Indian Institute of Technology Bombay, Mumbai	02.06.2008 to 06.06.2008
"Fuzzy Logic: Theory and Engineering Practices"	National Institute of Technology, Trichy	16.06.2008 to 28.06.2008

"Recent Advances in Materials and Processing Technologies"	National Institute of Technology, Trichy	01.06.2009 to 12.06.2009
"Engineering Practices on Fuzzy Logic, Neural Networks and Hybrid Intelligent System"	National Institute of Technology, Trichy	15.06.2009 to 27.06.2009
"Quality through Six sigma Concept and its Implementation"	National Institute of Technology, Trichy	14.12.2009 to 18.12.2009
"Quantitative Research Techniques for Engineers and Researchers"	National Institute of Technology, Trichy	21.12.2009 to 02.01.2010
"MEMS and its CAD Tools"	National Institute of Technology, Trichy	26.07.2010 to 30.07.2010

Participation in Conferences: (Presented papers)

Details
Modeling and simulation in Manufacturing (MOSIM-2003), National Conference at Annamalai University, Chidambaram, 15 to 16 March, 2003.
Responsive Supply Chain and Organizational Competitiveness (RSC- 2004), International Conference at Coimbatore Institute of Technology, Coimbatore, 5 to7 January 2004.
Modeling and Analysis of Production systems (MAPS-2004), National Conference at National Institute of Technology, Trichy, 22 to 24 January 2004.
Global Manufacturing and Innovation (GMI – 2006) International Conference at Coimbatore Institute of Technology, Coimbatore, 27 to 29 July, 2006.
Factory Automation, Robotics and Soft Computing, National Conference at National Institute of Technology, Warangal, 17 to 18 January, 2007.
Instrumentation and Control Engineering, National Conference at National Institute of Technology, Trichy, 27 December 2007.
The 6th International Conference on Supply Chain Management and Information Systems at National Institute of Technology, Trichy, 8-10, Dec. 2008.
XIV Annual International Conference of the Society of Operations Management at National Institute of Industrial Engineering (NITIE), Mumbai, 17-19, December 2010.
Second International Conference on Mechanical and Manufacturing Engineering (ICME 2011), at Universiti Tun Hussein Onn Malaysia (UTHM), 6-8, June 2011.

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event	Date (s)	Role	Venue
Workshop on PLC and Automation	National	15-17 March, 2007	Coordinator	NITT
Short Term Course on Recent Trends in Adv. Manufacturing	National	March 18-22, 2008	Coordinator	NITT
Workshop on Micromachining	National	18-19 Dec., 2008	Coordinator	NITT

STC on Engineering Optimization and Approaches	National	24-25 Aug. 2012	Coordinator	NITT
STC on Advances in Manufacturing Technology	National	23-25 Aug. 2013	Coordinator	NITT
STC on Micro- manufacturing	National	14-15 March 2014	Coordinator	NITT
STC on Optimization and Its Applications	National	24-25 Oct. 2014	Coordinator	NITT
STC on Recent Trends in Manufacturing Technology	National	26Sep. – 01 Oct. 2016	Coordinator	NITT
Industry 4.0	National	14 Sep – 18 Sep 2020	Coordinator	NITT

18. Invited Talks delivered

- Delivered **more than 30** invited talks on various topics of Manufacturing Technology and Optimization in Government and self-financing engineering colleges and BHEL Trichy.

19. Membership of Learned Societies

Type of Membership	Organization	Membership No. with date
Life Member	Institution of Engineers (IE) -India	M1395569
Life Member	Institution of Production Engineers (IPE)	SLM 3018
Life Member	Indian Society for Technical Education (ISTE)	GM46122
Life Member	Society of Automotive Engineers (SAE)	---

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Singapore	1 Month	Training on Micro/Nano machining at National University of Singapore
Malaysia	4 Days	To present paper in international conference at Universiti Tun Hussein Onn Malaysia

21. Publications

(A) Refereed Research Journals:

SCI Journals

1. J. Jerald, P. Asokan, G. Prabaharan, R. Saravanan, "Scheduling of Flexible Manufacturing Systems using Particle Swarm Optimization Algorithm", International Journal of Advanced Manufacturing Technology, UK, Vol.25, pp.964-971, 2005.
2. J. Jerald, P. Asokan, R. Saravanan, A. Delphin Carolina Rani, "Simultaneous Scheduling of Parts and AGVs in an FMS using Adaptive Genetic Algorithm", International Journal of Advanced Manufacturing Technology, UK, Vol. 29, pp. 584 – 589, 2006.
3. A. Gnanavelbabu, J. Jerald, A. Noorul Haq, V. Muthu Laxmi, T. Vigneswaralu, "Scheduling of Machines and Automated Guided Vehicles in FMS

using Differential Evolution" International Journal of Production Research. Vol. 48, No. 16, 15 August 2010, 4683–4699.

4. N. Rajesh Mathivanan, J. Jerald, "Experimental investigation of low-velocity impact characteristics of woven glass fiber epoxy matrix composite laminates of EP3 grade", Materials and Design, Volume 31, Issue 9, 2010, pp 4553-4560.
5. N. Rajesh Mathivanan, J. Jerald, Puspita Behera (2011), "Analysis of Factors Influencing Deflection in Sandwich Panels Subjected to Low-velocity Impact", International Journal of Advanced Manufacturing Technology, Vol 52, PP 433-441.
6. S.P.Leo Kumar, J.Jerald, S.Kumanan, (2014) "An Intelligent Process Planning System for Micro Turn- Mill Parts". International Journal of Production Research, Vol.52,No.40:6052-6075.
7. S.P.Leo Kumar, J.Jerald, S.Kumanan, Aniket Nargundkar, (2014) "Process Parameters Optimization for Micro End Milling Operation for CAPP Applications". Neural Computing and Applications, Vol.25, No.7-8:1941-1950.
8. S.P.Leo Kumar, J.Jerald, S.Kumanan, R.Prabakaran, (2014) "Review on Current Research Aspects in Tool Based Micromachining Processes". Materials and Manufacturing Processes. Vol.29, No.11-12:1291-1337.
9. S.P.Leo Kumar, J.Jerald, S.Kumanan, (2014) "Feature Based Modeling and Process Parameters Selection in a CAPP system for Prismatic Micro Parts". International Journal of Computer Integrated Manufacturing. DOI:10.1080/0951192X.20140953586 (Published Online)
10. J Cyril, P Asokan, J Jerald, Sumit Kuar, G Kanagaraj, Experimental investigations of powder mixed micro Electrical discharge drilling on 316L Stainless Steel, Materials and Manufacturing Process, August 2016(Published Online).
11. J. Cyril Pilgrin, P. Asokan, **J. Jerald**, G. Kanagaraj, J. Mukund Nilakantan, Izabela Nielsen," Tool Speed and Polarity Effects in Micro-EDM Drilling of 316L Stainless Steel", Production and Manufacturing Research, pp.99-117,2017.
12. J. Cyril Pilgrin, P. Asokan, **J. Jerald**, G. Kanagaraj," Effects of electrode materials on performance measures of electrical discharge micro-machining", Materials and Manufacturing Processes, pp.1-10,2017.
13. **J. Jerald**, R. Rekha, A. Palanisamy, N. Baskar, "Regression Modelling and Simulated Annealing Optimization of Cylindrical Grinding Process", International Journal of Manufacturing Technology and Management. (Accepted).
14. T. Venkatesan, **J. Jerald**, P. Asokan, "Performance analysis of cryogenically assisted high speed micro drilling of Incoloy 800 super alloy", Materials Research Express, volume 6. DOI: 10.1088/2053-1591/ab1a0a.
15. **J. Jerald**, P. Asokan, T. Venkatesan, J. Cyril Pilgrin,"Experimental Investigation on Micro Drilling of Inconel 718 Super Alloy", International Journal of Machining and Machinability of Materials. (Accepted).
16. A. Saravanan & **J. Jerald** (2020) "Ontological model-based optimal determination of geometric tolerances in an assembly using the hybridized neural network and Genetic algorithm", Journal of Engineering Design 30: 4-5, 180-198. DOI: 10.1080/09544828.2019.1605585.
17. Saravanan, A., Jerald, J., & Carolina Rani, A. (2020). "An explicit methodology for manufacturing cost–tolerance modeling and optimization using the neural network integrated with the genetic algorithm". Artificial Intelligence for Engineering Design, Analysis and Manufacturing, 34(3), 430-443. doi:10.1017/S0890060420000219.

18. A. Saravanan, J. Jerald & A. Delphin Carolina Rani (2020) "An intelligent constitutive and collaborative framework by integrating the design, inspection and testing activities using a cloud platform", International Journal of Computer Integrated Manufacturing, 33:5, 440-459, DOI: 10.1080/0951192X.2020.1736712
19. Sherif, S.U., Sasikumar, P., Asokan, P., **Jerald, J**. (2020), "Bi-objective optimisation model with societal constraints for green closed loop supply chain network – a case of battery industry", International Journal of Productivity and Quality Management, Vol. 27, No. 3, pp. 276 – 304.
20. Sherif, S.U., Sasikumar, P., Asokan, P., **Jerald, J**. (2021), "An eco-friendly closed loop supply chain network with multi-facility allocated centralized depots for bidirectional flow in a battery manufacturing industry", Journal of Advances in Management Research, Vol. 17, No. 1, pp. 131 – 159.

Non-SCI Journals

1. J. Jerald, P. Asokan, R. Saravanan, A. Delphin Carolina Rani, "Simultaneous Scheduling of Parts and AGVs in an FMS using Non-Traditional Optimization Algorithms", International Journal of Applied Management and Technology, USA, Vol.3, No.1, pp. 305- 315, 2005.
2. J. Jerald, P. Asokan, G. Prabaharan, R. Saravanan, "Scheduling of Parts and AS/RS in an FMS using Genetic Algorithm", International Journal of Applied Management and Technology, USA, Vol. 4, No.1, pp.25 – 34, 2006.
3. P. Asokan, J. Jerald, S. Arunachalam, T.Page, "Application of the Adaptive Genetic Algorithm and Particle Swarm Optimization in the scheduling of Jobs and AS/RS in FMS", International Journal of Manufacturing Research. Vol. 3, No. 4, pp. 393-405, 2008.
4. J. Jerald, A.Gnanavel Babu, A. Noorul Haq, "Multi-Objective Scheduling of Jobs, Automated Guided Vehicles and Automated Storage/Retrieval System in Flexible Manufacturing System" International Journal for Manufacturing Science & Production, Vol. 9, Nos. 1-2, 2008, pp 61–80.
5. N. Rajesh Mathivanan, J. Jerald, L. Sunith Babu, Ramesh. S.Sharma, "Experimental Investigation of Low-velocity Impact Characteristics of Polyurethane Foam based Sandwich Composites", International Journal of Mechanical Engineering, Vol. 1, No. 2, pp. 163-167, 2008.
6. A. Gnanavel Babu, J. Jerald, K. Narendar, A. Noorul Haq, "Simultaneous Scheduling of Machines and AGVs in FMS Environment", Journal of Modern Manufacturing Technology, Vol 1. No. 1 pp 43 – 57, 2009.
7. N. Rajesh Mathivanan, J. Jerald, K. Divya, "Finite Element Analysis of Low-velocity Impact Damage Tolerance on Composite Laminates", International Journal of Material Sciences, 2009, vol. 4, Number 2, pp 101-114.
8. A. Gnanavel Babu, J. Jerald, A. Noorul Haq (2009), "Scheduling of Machines and AGVs in FMS using Sheep Flock Heredity Algorithm", International Journal of Industrial Engineering Practices Vol 1, No 2, pp 115-124.
9. A. Gnanavel Babu, J. Jerald, A. Noorul Haq, "Multi-objective Scheduling of Jobs, AGVs and AS/RS in FMS using Artificial Immune System" International Journal of Advances in Production Engineering and Management, No 3, Vol 4, 2009, pp 139-150.

10. A. Gnanavel Babu, J. Jerald, A. Noorul Haq (2010), "Particle Swarm Optimization for scheduling of Machines and Automated Guided Vehicles in Flexible Manufacturing Systems", International Journal of Materials, Manufacturing and Optimization, Vol 1, No. 1, pp 1-11.
11. Gnanavel Babu, S.Divya, J. Jerald, A. Noorul Haq (2010) "Simultaneous Scheduling of Machines and Automated Guided Vehicles in FMS using Scatter Search', International Journal for Production Technology and Management Research, Vol 1, No.1, pp 9-17.
12. R. Ramesh, J. Jerald, Tom Page, Subramaniyam Arunachalam, "Concurrent Tolerance Allocation using an Artificial Neural Network and Continuous Ant Colony Optimization", International Journal of Design Engg., Issue 2, Vol. 1, 2009, pp. 1-25.
13. R. Ramesh, J. Jerald, "Concurrent Tolerance Allocation for Quality with Form Control using Genetic Algorithm", International Journal of Manufacturing Research, Vol. 4, No. 4, 2009, pp. 439-457.
14. R. Ramesh, J. Jerald, "Development of New Emprical Manufacturing Cost Tolerance Models", International Journal of Materials, Manufacturing and Optimization, (Accepted for publication, 2009).
15. J.Jerald, A.S.Radhamani, T.Merlin Leo, "Multi Objective Scheduling of Jobs In An FMS using Memetic Algorithm", Journal of Neural Computing, Vol. 3, No. 1, 2010, pp 31-41.
16. J. Jerald, Saravanan D, Arul Arasu M, and Arunachalam R.M. (2010), "Experimental Investigation of Micro Electro Chemical Machining on Nickel", International Journal of Production Technology and Management Research, Volume 1, Issue 2, , pp 67-74.
17. N. Rajesh Mathivanan, J. Jerald (2010), Experimental investigation of woven E-glass epoxy composite laminates subjected to low-velocity impact at different energy levels, The Journal of Minerals & Materials Characterization & Engineering. Vol. 9, No.7, pp.643-652.
18. Rajesh Mathivanan, N. and J. Jerald (2011) "An Experimental Investigation of the Low-Velocity Impact Response In Woven E-Glass Epoxy Composite Laminates With Graphite Particulate Fillers", International Journal of Materials, Management and Optimization, No 2, Vol 1, pp 13-18.
19. M. S. Arun Vikram, A. Chandramouli and J. Jerald (2011), "Scheduling Optimization of Job Schaduling Proble using Particle Swarm Optimization" , International Journal of Materials, Management and Optimization, No 2, Vol 1, 2011, pp 1-5,
20. R.Thanigaivelan, RM.Arunachalam, J.Jerald, T.Niranjan, (2011) "Applications of Taguchi Technique with Fuzzy Logic to Optimise an Electrochemical Micromachining Process", Int. J. of Experimental Design and Process Optimisation. Vol 02, No.: 04, pp 283-297
21. H. Rama Murthy Naik, J.Jerald and N. Rajesh Mathivanan,(2012), "Impact Damage Detection in GFRP Laminates through Ultrasonic Imaging, Int. Journal of Advanced Materials Research, Vol. 585, pp 337-341
22. Rajesh Mathivanan, N. and J. Jerald (2012), "Interlaminar fracture toughness and low-velocity impact resistance of woven glass epoxy composite laminates of EP3 grade", The Journal of Minerals & Materials Characterization & Engineering Vol 11, No 3, pp 321-333.
23. J.Jerald, S.Kumanan, S.P.Leo Kumar, H.V. Chandrakar, (2013) "Experimental Investigation and Optimization of Process Parameters in Micro- Electric Discharge Machining, Int. J. of Manufacturing Technology and Management. No 1/2/3,Vol.27, pp 88-100.
24. T. Venkatesan, J. Jerald, P. Asokan," Performance analysis of Temperature and MRR using high speed micro drilling on Incoloy 800 super alloy". Lecture Notes in Mechanical Engineering. (Accepted).

25. Su. Venkatesan, J. Jerald, P. Asokan, R. Harichandran, "A study on the mechanical and corrosion behavior of bronze – TiB2 metal matrix composites", Materials Today: Proceedings, Volume 39, Part 4, 2021, Pages 1426-1433, ISSN 2214-7853, https://doi.org/10.1016/j.matpr.2020.05.116.
26. Venkatesan, S., Jerald, J., Asokan, P., Prabakaran, R. (2020). A Comprehensive Review on Microfluidics Technology and its Applications. In: Kumar, H., Jain, P. (eds) Recent Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-15-1071-7_20.
27. S.Senthilkumar and J.Jerald (2021),"Study the Impact of Electrical Discharge Machining Parameters on Al-Mg-Tio2 Nano Composite", International Journal of Mechanical Engineering, Vol. 6 No. 3 December, 2021.
28. Kiran V Sagar, J. Jerald (2022)," Real-time Automated Guided vehicles scheduling with Markov Decision Process and Double Q-Learning algorithm", Materials Today: Proceedings, 2022,ISSN 2214-7853,https://doi.org/10.1016/j.matpr.2022.04.522.

National Journals:

1. K.Thangadurai, J. Jerald, P.Satheesh, R.Saravanan, "Optimization of Operating Parameters in Wire Electric Discharge Machining using Particle Swarm Optimization and Memetic Algorithm", Journal of Manufacturing Technology Today, pp.11-15, Vol. 3, No. 11, 2004.
2. J. Jerald, P. Asokan, R. Saravanan, A. Delphin Carolina Rani, "Simultaneous Scheduling of Parts and AGVs in an FMS using Genetic Algorithm", Journal of Manufacturing Technology Today, pp.8-11, Vol. 3, No. 12, 2004.
3. R.Ravikumar, P. Asokan, J. Jerald, M. Shanthi "Optimization of Parameters in Electro Chemical Machining using Non-Traditional Techniques", Journal of Manufacturing Technology Today, pp.10-14, Vol. 7, No. 4, 2008.
4. R.C.Paul, P.Asokan, J. Jerald, "Multi objective Facility Layout Problem using Particle Swarm Optimization" Journal of Institution of Engineers (India), Vol. 89 pp 1-6, Sep 2008.

(B) Conferences/Workshops/Symposia Proceedings

International Conferences:

1. S. Muruganandam, J. Jerald, R. Saravanan, P. Asokan, "Optimization of Modern Manufacturing Systems using Genetic Algorithm (GA)", International Conference on e-Manufacturing, Maulana Azad National Institute of Technology, Bhopal, 17-19 November 2002.
2. J. Jerald, P. Asokan, G. Prabaharan, P. Satheesh, "Scheduling Optimization of Flexible Manufacturing Systems using Memetic Algorithm", International Conference on Responsive Supply Chain and Organizational Competitiveness (RSC 2004), Coimbatore Institute of Technology, Coimbatore, 5-7 January 2004.
3. Jeganathan.K, Jerald.J, Satheesh.P," Optimization of Tool Requirement Planning in CNC Machines" 21st All India Manufacturing Technology, Design and Research (AIMTDR), VIT Vellore, December 20-22, 2004.

4. P. Asokan, M. Chandrasekaran, J. Jerald, "Application of Artificial Immune System Algorithm to Minimize Total Holding Cost of Completed and In-Process Products Subject with No Tardy Jobs", 17th International Conference on Flexible Automation and Intelligent Manufacturing, The Pennsylvania State University, Pennsylvania, USA, June 18-20, 2007.

5. A. Gnanavel Babu, J. Jerald, A. Noorul Haq, "Multi objective Scheduling of Jobs, AGVs and AS/RS in FMS using Sheep flock Heredity Algorithm", International Conference on Advances in Manufacturing Technology for Young Engineers, IITM, Chennai, 6-8 February, 2008.
6. A. Gnanavel Babu, P. Prabhaharan, J. Jerald, A. Noorul Haq, "Particle Swarm Optimization for Scheduling of Machines and AGVs in FMS", International Conference on Advances in Manufacturing Technology for Young Engineers, IITM, Chennai, 6-8 February, 2008.
7. A. Gnanavel Babu, J. Jerald, P. Prabhaharan, A. Noorul Haq, "Scheduling Optimization of Machines and AGVs in Flexible Manufacturing Systems", International Conference on Digital Factory, Coimbatore Institute of Technology, Coimbatore, 11-13, August 2008.
8. A. Noorul Haq, A. Gnanavel Babu, J. Jerald, P. Asokan, K.Narendar, "Simultaneous Scheduling of Machines and Automated Guided Vehicles using Artificial Immune System", The 6th International Conference on Manufacturing Research, UK, 9 – 11 September 2008.
9. A. Gnanavel Babu, J. Jerald, A. Noorul Haq, "Multi-objective Scheduling of Machines and Material Handling systems in FMS Environment" The 6th International Conference on Supply Chain Management and Information systems, National Institute of Technology, Tiruchirappalli, 8-10, Dec. 2008.
10. Gnanavel Babu, A. Noorul Haq, J. Jerald, "Artificial Immune System Based Scheduling for Machines and Material Handling Systems in FMS", 2nd International and 23rd All India Manufacturing Technology, Design and Research Conference, IIT Madras, Dec-2008, pp.51-57.
10. N. Rajesh Mathivanan, J. Jerald, Ramesh S. Sharma, "Influence of Core Density of Composite Structures subjected to Low-Velocity Impact", International Conference on Emerging Research and Advances in Mechanical Engineering(ERA 2009), Velammal College of Engineering, Chennai, 19 – 21 March 2009.
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